

SEASONAL INCIDENCE AND CONCENTRATION OF RAINFALL IN AUSTRALIA.

By JOHN ANDREWS, B.A., Demonstrator in Geography, and W. H. MAZE,
Caird Scholar in Geography, University of Sydney.

(Five Text-figures.)

[Read 26th April, 1933.]

A series of maps showing the proportion of the annual rainfall occurring in each season is useful for many purposes dealing with climatological, pedological and vegetational distributions. A complete series does not seem to have been published before in Australia. In each case the maps given here (Figs. 1-4) show the percentage of the yearly rainfall which falls during the season in question.

A further map (Fig. 5) which has been found useful is that showing the degree of concentration of rainfall in the wettest season. This is constructed from the values for each station obtained by taking the difference between the highest and the lowest seasonal percentage amounts. The table shows these values for representative stations.

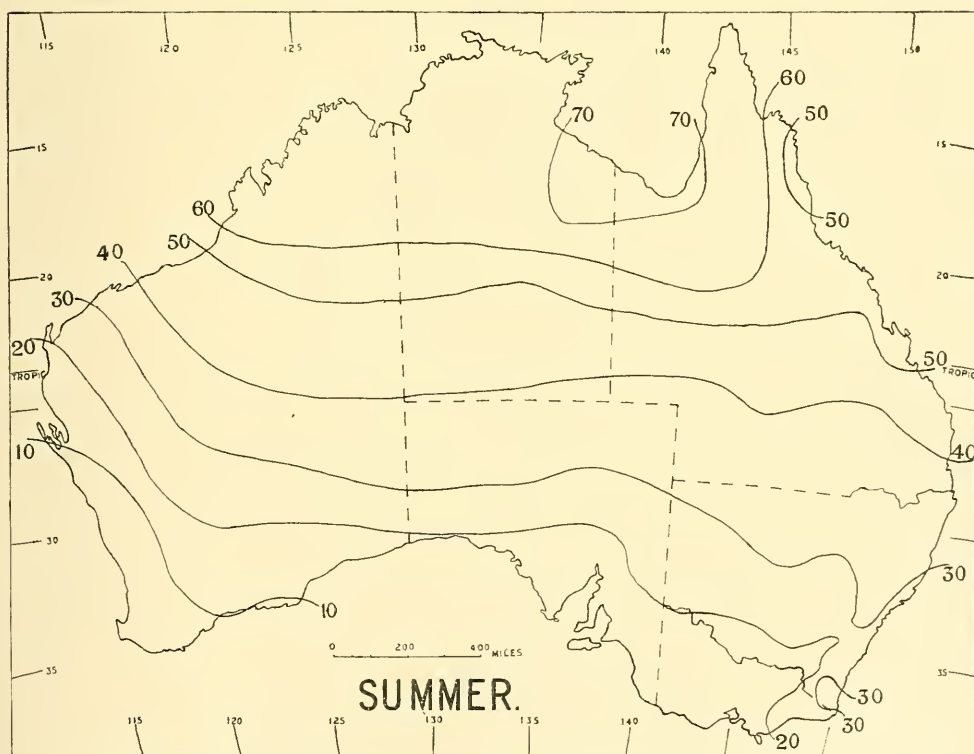


Fig. 1.—Summer rainfall, showing the percentage of the mean annual total that falls in December, January and February.

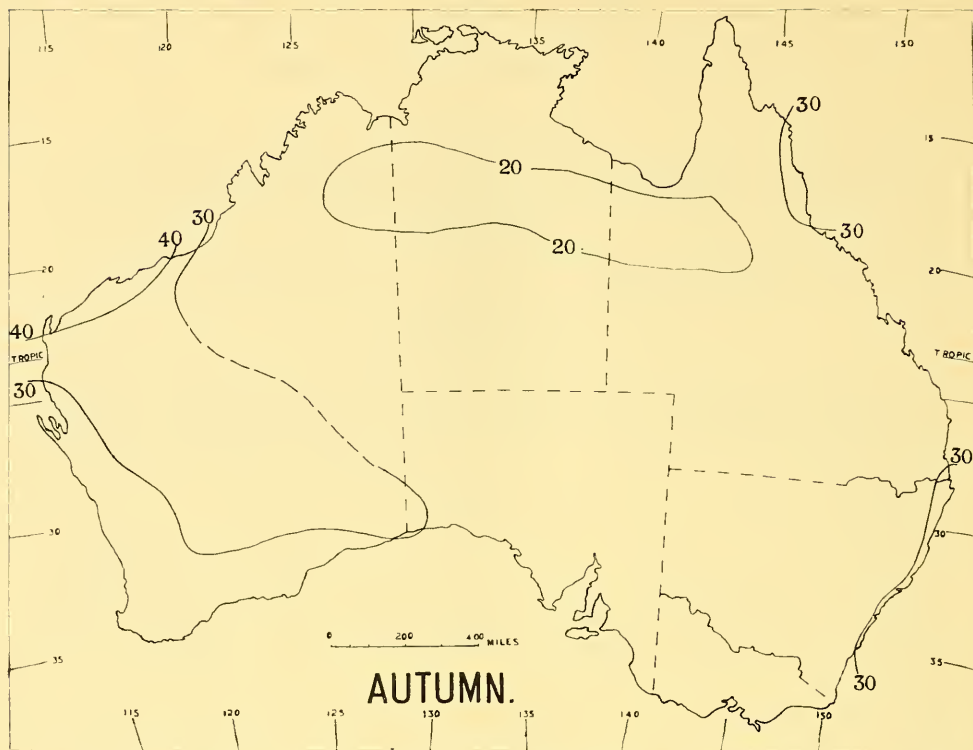


Fig. 2.—Autumn rainfall, showing the percentage of the mean annual total that falls in March, April and May.

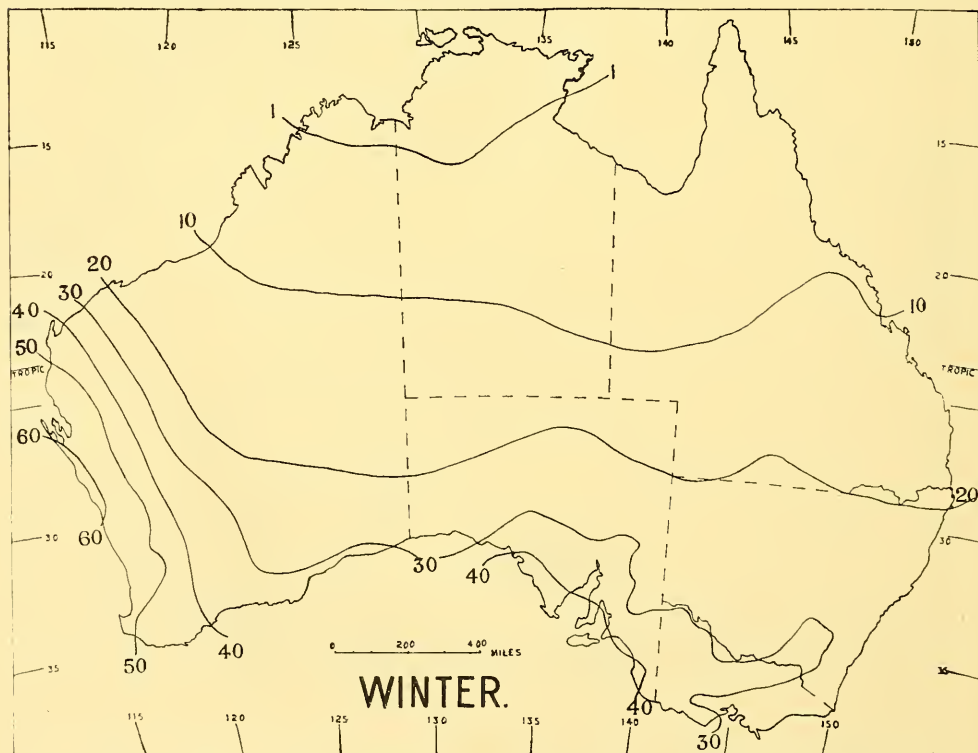


Fig. 3.—Winter rainfall, showing the percentage of the mean annual total that falls in June, July and August.

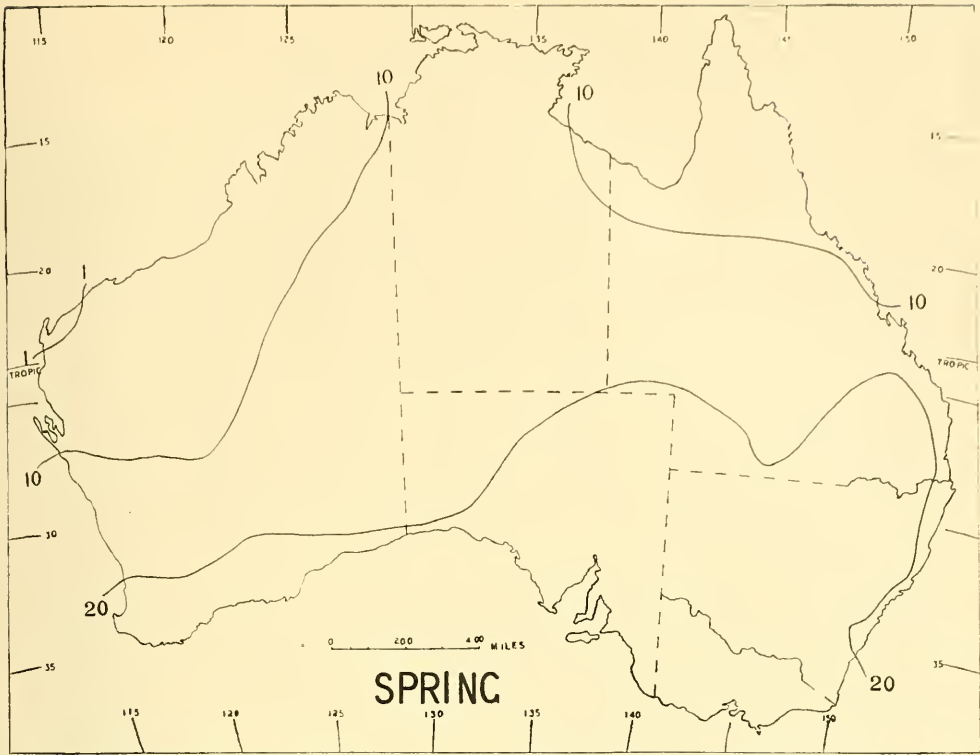


Fig. 4.—Spring rainfall, showing the percentage of the mean annual total that falls in September, October and November.

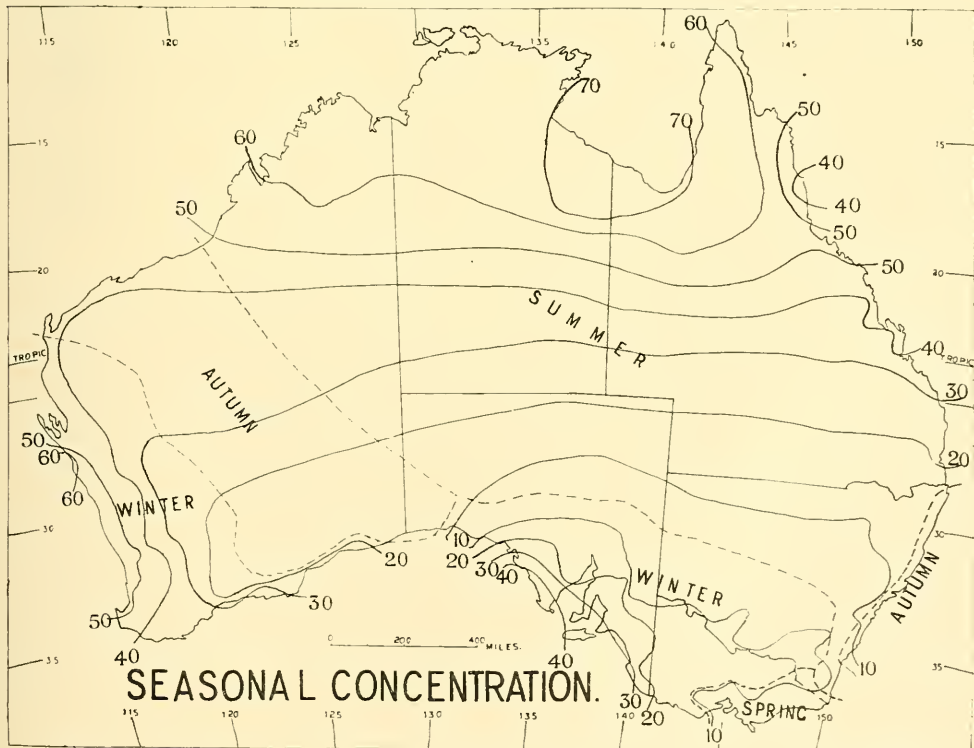


Fig. 5.—The seasonal concentration of rainfall. The index figure is the difference between the highest and the lowest seasonal percentage amounts. Seasonal maximum regions are also shown (bounded by dotted lines).

Seasonal Rainfall at Representative Stations.

Station.	Summer. %	Autumn. %	Winter. %	Spring. %	Concentra- tion Index.
Thursday Island	60·6	35·1	1·6	2·7	59·0
Normanton	72·0	20·3	1·5	6·2	70·5
Moree	32·4	24·3	20·6	22·7	11·8
Bathurst	29·0	22·7	22·7	25·6	5·3
Sale	24·1	24·6	21·7	29·6	7·9
Sydney	22·5	33·0	26·6	17·9	15·1
Cape Leeuwin	6·1	24·0	50·2	19·7	44·1
Laverton	27·5	37·1	21·7	13·7	15·4
Onslow	23·8	41·8	33·4	1·0	40·8
Alice Springs	44·5	23·9	12·1	19·5	32·4

(Seasonal figures are percentages of the mean annual total.)

In the map (Fig. 5) the index figure may be regarded as an index of concentration, the name of the season in which maximum concentration occurs being given also. Thus most of New South Wales has a low degree of concentration, there being a difference of only 10 (more or less) between the highest and the lowest seasonal percentage figures. The shores of the Gulf of Carpentaria, on the other hand, have a highly concentrated rainfall, since the season of heaviest fall (summer) has at least 70% more of the year's total than has the driest season. It follows in this case of course that the other seasons must also have small percentage figures. The actual figures for Normanton are given above.

The boundaries showing the season of greatest fall differ in some particulars from other published maps.